Operations Division 500 North 3rd Street Phoenix, Arizona 85004

### WELL DRILLER REPORT



This report should be prepared by the <u>driller</u> in all detail and filed with the Department within 30 days following completion of the well.

1. O	wner Name:	M A GMA	COPPER	COMPAN	1U				٠		
	ddress:					RENCE	s , A	·Z	85	232	
		Street		City				State	Zi	-	
2. D	riller Name:	BEEMA	N DRILLI	NG COMP	4νγ						
Α	.ddress:		3370 AT	PACHE JU.	NCTION			42		35217	
		Street		City				State	Z	ip	
3. L	ocation: 4	N/S)	9	EW_	<i>3</i> 3	1/4	NE	1/4	NW	1/4 Na)	
	Townsl	nip	Range		Section		10-acre		40-acre	160-acre	
4. W	Vell Registratio	n No. 55	549180				(Red	quired)			
5. P	ermit No	····		<del></del>			(If iss	ued)			
			D	ESCRIPTION TO SERVICE	ON OF V	VELL	•				
6 Т	otal depth of h	nole	741			ft					
	ype of casing_										
γ. I	Diameter and le	noth of casi	no 59/16 i	n from 6	) to 6/	105	59/1/2 it	from	720.10	to 730.4	
9. N	Method of seali	ng at reducti	on points	<u>.</u>		20.2.3	0776		76-0.0		
10 P	Perforated from	ing at roadot.	t∩	from		to		from		to	
11 S	Size of cuts			Numbe	er of cuts	per fo	ot				
12. It	Size of cuts	stalled: Len	eth (of	ft.	Diam	59	114	in. 7	Type Sel	. 80 PVC, 0.08	n"s
13. N	Method of cons	truction	DRILL	ED							
		(dri	lled, dug, dri	ven, bored, je	tted, etc)						
14. E	Date started		UNE				1995				
16 5		Mo	nth	Day			Year				
15. L	Date completed		NE nth	/5 Day			1995 Year	·		<u> </u>	
16 T	Depth to water_	WIO	nin 152	– Day		ft (		o well	so state)		
10. L	ocpui to water_		10				ii iiowiii	g won,	so siate)		
17. I	Describe point	from which	depth meas	urements w	ere made,	and g	give sea-l	evel el	evation if	available	
18. I	If flowing well	, state metho	d of flow i	egulation:_							
10 I	Remarks:				<del></del>						<del></del>
19. 1	Kemarks						DO NO	r writ	E IN THIS	SPACE	İ
-							5-549180				1
-			····		l l	Rej Eik D	(4-9)33B	BA			-
DWR-5	5-55-10/94 (Rev.)				1	Rec	ENTER	REDA	UG 2 3		<u>-</u>
2 - 11 0						Ent				1995	_
					L						

### LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If wate is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
0	70	CLAYEY POORLY SORTED HUNNIM  CLAYEY POORLY SORTED CONGLONERATE  CLAYEY COARSE SAND  PRODERATELY SORTED, GRAVELLY SAND (CONGLOMERATE)
70	300	CLAUGU. POORLY SORTHS CONGLAMERATE.
Z00	330	CLAYEU CHARGE SAND
330	740	PRODERATELY SARTED, GRAVELLY SAND (CONGLOMERATE)
		~
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	<del> </del>	<del> </del>
<del></del>		

I hereby certify that this well was drilled by me(or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller N	ame:_P	RIZONY	BEEMAN D	RILLING LLC
P.O.	Box	337	0	
Street Hoache City	Jct	AZ.	85217	(602)983-2542 Phone No.
City	S	tate	Zip	Phone No.
Date Date	gust	- 17,	1995	

500 North Third Street Phoenix, Arizona 85004

### WELL DRILLER REPORT

		1 1 01 1		
	report should be prepared by the <u>driller</u> in all detwing completion of the well.	ail and filed wi	th the Departmen	
1.	STEWART BROTHERS DRILLING PO BOX 2067 MILAN NM 87021-2067	G COMPANY	SEP 1 5	
2.	Owner Name: BHP Copper 6. 7 Address: Tucson 42 City State	400 N. DFAC	le Rd, 56.20	٥
	Address: Tucson 42	85704		·
	City State	Zip		
3.	Location: 45 N/S 9E E/W 33 1/2	NE 14	NW 1/4 NW	
	Township Range Section	10-acre		0-acre
4.	Well Registration No. 55	(Re	quired)	
5.	Permit No	(If issu	ied)	
6.	Total depth of hole 746		049 <b>G</b> L	
7.	Type of casing MC			
	Diameter and length of casing 1/2 in. from 721			to +2
	Method of sealing at reduction points			
			from	
	Size of cuts .020 Number		in. Type_	
	If screen was installed: Length 80 1 Method of construction Deilled	i. Dianii/ <sub>a</sub>	<u></u>	/ ٧
15.	(drilled, dug, driven, bored, jetted, etc)	· · · · · · · · · · · · · · · · · · ·		
14.	Date started 8 5	97		
	Month Day	Year		
15.	Date completed 8 4	97 Year		
16.	Month Day Depth to water 180		g well, so state)	
17.	Describe point from which depth measurements were + 3' ABOVE LAND SWFACE		sea-level elevation i	
18.	If flowing well, state method of flow regulation:			
19.	Remarks: This was repair work  done or this well. Well was prevently  drilled in 1995. Steel casing was leaking		O NOT WRITE IN THIS OFFICE RECORI	
	@276' so well was reduced in diameter	File No. D(4-		

Received\_ Entered\_

DWR-55-55-7/95 (Rev.)

### LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
		Formation description Alverdy on fibe. We
		Formation description Alverday on fibe. We was drilled in 1995 under this same well registration
		Namber,
	٠	
	:	
	ζ.	
	-	
		AND

I hereby certify that this well was drilled by me(or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller N	Iame:		
Street			
City	State	Zip	Phone No.
Signature o	f Driller		Date

049-GL

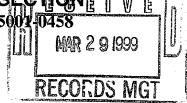
# ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTIONE |

MAIL TO: P. O. BOX 458 - PHOENIX ARIZONA 85002 0458

Phone (602) 417-2470

### **COMPLETION REPORT**

(Pump Installation Report)



- 1. Per A.R.S. § 45-6000, the Completion Report is to be filed with the Department within 30 days after installation of pump equipment by the registered well owner.
- Drawdown of the water level for a non-flowing well should be measured in feet after not less than 4 hours of continuous operations. For a flowing
  well the shut-in pressure should be measured in feet above the land surface or in pounds per square inch at the land surface.
- 3. The static groundwater level should be measured in feet from the land surface immediately prior to the capacity test.

4. The tested pumping after continuous o	capacity of the well in g peration for at least 4 h	allons per minute for a no ours and for a flowing w	on-flowing well should be one of the measuring the mature.	determined b ral flow at the	y measuring the d e land surface.	ischarge of the pump
REGISTRATION N	0:55- 54	9180	FILE NO	: D(4	<u>-9)338</u>	BA
LOCATION OF TH	E WELL:					
Y N/S	Range	33 Section		NF 0-acre	14 NW 40-acre	¼_∩W 160-acre
EQUIPMENT INST	ALLED:					
Kind of pump <u>Stac Nte</u> Turbine,	ess Steel : Submersible, Centrifu	<u>Submersible</u>	Kind of power	ELE etric, natural	gas, gasoline, etc.	
H.P. Rating of Motor						
WELL TEST:						
Test pumping capacity_	13 gpn	<u> </u>	_ Date Well Tested	ع	3-9-97	
Method of Discharge Me		gallon Bu		5400u	atch	
Static Groundwater Leve	ı <u>135</u>	.23	ft. Drawdown		<i>2</i> 5	ft
Total Pumping Lift			ft. Drawdown		owing Well)	lbs
I HEREBY CERTIFY th	at the above stateme	ents are true to the be	st of my knowledge and	d belief.		
Print Well Owner's Nam	e BHP Co	pper Address	(	City	State	Zip
	Florence F <del>14605 East Hu</del>	nt Hichway				126/99
Signature of Well Owner	Florence, A h: (520) 868-4711 Fa	Z 852 <b>32</b> · Ph	one Number			' Date
DWR 55-56 (Rev 6/98)	Corolla	Doay		$\mathcal{N}$	raila C	3/26/95
	· ·	1887/57/FD MAR	3 0 <u>1909</u>	γı	/ Carry	( 1 = x ) +

# ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street Phoenix, Arizona 85004-3903



THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-549180

AUTHORIZED DRILLER:

STEWART BROTHERS DRILLING COMPANY

LICENSE NO: 314

NOTICE OF INTENTION TO MODIFY A MONITOR WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

CONSULTANT:

**BROWN & CALDWELL** 

WELL OWNER:

BHP COPPER CO.

7400 N ORACLE RD STE. 200

TUCSON AZ 85704

The well(s) is/are to be located in the:

NE 1/4 of the NW 1/4 of the NW 1/4 Section 33 Township 4 SOUTH Range 9 EAST

No. of Wells in this project: 1

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 21ST DAY OF JULY, 1998

CHIEF, GROUNDWATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING



### DEFAKTMENT OF WATER RESOURCES

### GROUNDWATER MANAGEMENT SUPPORT SEC

MAIL TO: P.O. BOX 458, PHOENIX, ARIZONA 85001-0458 500 NORTH 3RD STREET, PHOENIX, ARIZONA 85004-3903 PHONE (602) 417-2470 FAX (602) 417-2422



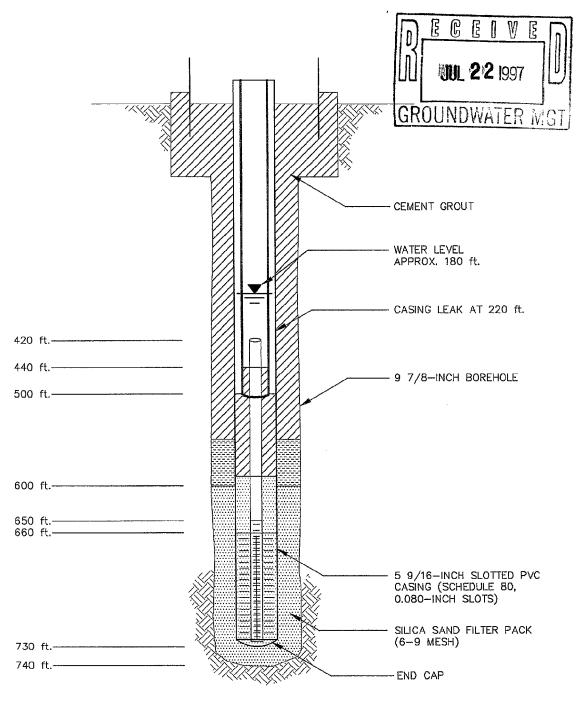
### NOTICE OF INTENTION TO DRILL MONITOR/PIEZOMETE

PLEASE READ GENERAL INSTRUCTIONS AND CONDITIONS ON REVERSE SIDE OF THIS FORM BEFORE COMPLETING.

	845 4 /	10. Will this proposed well be associated
4 NO 9 OW 33	BHP Copper Co Name	with a permit: Yes × No If yes, Permit No. <u>APP 10170Y</u>
Township Range Section	Mailing Address	11. Construction will start:
NE 1/4 NW 1/4 NW 1/4  10 Acre 40 Acre 160 Acre	City - State - Zip Zip Zip	7 28 97
Position location of the well on the	•	12. Period well will remain in use:
land:	Telephone No	
Latitude 33 o 02 ' 42 "	7. Consulting firm:  Brown & Caldwell	45Months/(ears
Longitude	Name Jarrell Southall	13. For monitoring wells, is pump equipment to be installed?
. County: Ping /	Contact Person	Yes _ X No
Owner of the well:	Telephone No.( <u>602) 222-4533</u>	(a) If yes, design pump capacity:
BHP Copper Co	8. Purpose of well drilled pursuant to this notice:	10 gpm
Name 7400 N. Oracle Rd St. 200 Mailing Address	Monitor <u>modify existing well</u> Piezometer	(b) What use will be made of the
Tucson AZ 85704 City State Zip	<ol> <li>If for deepening or modifying, list well registration number:</li> </ol>	water: 50 mpling
Telephone No. 520 - 868 - 509 4	55- <u>549/80</u>	14. Drilling Firm: DRIVING Comp.
. Lessee of the land of wellsite:	FOR DEPARTMENT USE ONLY	Stewart Brothers
- Lessee of the land of Weisher	File No. D(4-9)33 66A	Name P.O.Box 2067
Name	Filed 7/22/97 By WAL 1897	Milan Nm 87021
Mailing Address	DUPLICATE  Mailed 722/97 By de	City State Zip (505) 287 - 2986 2067
City State Zip	Registration 55-549/80	Telephone No.
Telephone No	WIS US SIB //	DWR License Number
- Clophone (143-		ROC License Category
5. Proposed method of abandonment of well	l after project is completed: <u>Cemen+ 910 n</u>	t from total depth to surface
		pursuant to R12-15-816
6. Is this well to monitor existing contamination of the compliance well for an i	tion? Potential contamination	. Please explain: Point of
tate that this Notice is filed in complianc	e with Rule A.A.C. R12-15-809 and R12-15	-816(F), and is complete and correct to th
st of my knowledge and belief and that I	understand the conditions set forth on the	reverse side of this form.
•		

<i>11</i>	construction plans have been	coordinated with Arizona Departr	ment of Water Resources, who is	the agency contact?	
W al	ELL CONSTRUCTION PLAN Drilling method (mud rotary	: , hollow-stem auger, etc.) <u>The</u>	existing well will be	modified as show	
ь, ь,	Borobola diameters	inches from	= 2.21.004	Atta	chmen t
IJ,	potentile diameters.	inches from inches from		et to	reet feet
c)	Casing materials (PVC), stee	l, hollow-stem auger, etc.)			
	material	diameterdiameter	inches from	feet to	feet feet
			•	reet to	reet
d)	Method of sealing at reducti	ons			
e)		ent, grout, etc.,); method of placem			_
	material	method method	from	teet to feet to	feet
				100(10)	
t)	Filter packs (state material):	from	feet to		feet
	material	from from	feet to		feet.
g)	Perforations or screen specif	ications:			
_	Туре	from	feet to		feet
	i ype	irom	reet to		reet
i)	Will surface or conductor ca	t (bail, air lift, surge) sing extend above grade?: Yes liagram showing expected water o	No		ecified.
i)	Will surface or conductor ca	sing extend above grade?: Yes	No		ecified.
) Inc	Will surface or conductor ca	sing extend above grade?: Yes_ liagram showing expected water of GENERAL IN	No  Ilepth in feet below land surface,  STRUCTIONS	, and details of vault, if spo	
i) Inc	Will surface or conductor callude detailed construction detailed construction detailed construction detailed for the construction of the construct	sing extend above grade?: Yes	No  Ilepth in feet below land surface  STRUCTIONS  India check or money order (no	, and details of vault, if spo	
i) <b>In</b> c	Will surface or conductor callude detailed construction detailed construction detailed construction detailed for the construction of the construct	sing extend above grade?: Yes liagram showing expected water of GENERAL IN otices, with original signatures, and 35001-0458 or hand deliver to 50	No  Ilepth in feet below land surface  STRUCTIONS  India check or money order (no	, and details of vault, if spo	
i) Inc 1.	Will surface or conductor callude detailed construction defined by the submit two original managements and the submit two designs of the submit two	sing extend above grade?: Yes_liagram showing expected water of GENERAL IN otices, with original signatures, at 35001-0458 or hand deliver to 50 COND the land owner or lessee, signs this permission to sign this specific	Mo  depth in feet below land surface  STRUCTIONS  and a check or money order (no lo North 3rd Street, Phoenix, Ar  ITIONS  s notice, an original letter of au	, and details of vault, if spo cash) in the amount of \$10 izona 85004-3903.	0.00, to P.O.
i) Inc 1.	Will surface or conductor callude detailed construction deflet submit two original managements and a submit two detailed from the stating that the individual has a Monitor/Piezometer Well to	sing extend above grade?: Yes_liagram showing expected water of GENERAL IN otices, with original signatures, at 35001-0458 or hand deliver to 50 COND the land owner or lessee, signs this permission to sign this specific	Jepth in feet below land surface STRUCTIONS  Ind a check or money order (no 0 North 3rd Street, Phoenix, Ar ITIONS  ITIONS  In notice, an original letter of au Notice on their behalf, shall acc	, and details of vault, if spo cash) in the amount of \$10 izona 85004-3903. thorization from the land of ompany the Notice of Inte	0.00, to P.O.
i) Inc 1.	Will surface or conductor callude detailed construction declared submit two original materials and abandonments of the construction and abandonments will surface the construction and abandonments will be surface to construction and abandonments will be surfaced to construction and abandonments will be surfaced to construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construct with the construction and abandonments will be surfaced to construct wi	sing extend above grade?: Yes_liagram showing expected water of GENERAL IN otices, with original signatures, as 35001-0458 or hand deliver to 50 COND the land owner or lessee, signs this permission to sign this specific form.	depth in feet below land surface STRUCTIONS  Ind a check or money order (no 10 North 3rd Street, Phoenix, Ar ITIONS  Is notice, an original letter of au Notice on their behalf, shall acce	, and details of vault, if spo cash) in the amount of \$10 izona 85004-3903. thorization from the land of ompany the Notice of Inte	0.00, to P.O.
i) Inc 1.	Will surface or conductor callude detailed construction of Please submit two original materials of the mater	sing extend above grade?: Yes_liagram showing expected water of GENERAL IN otices, with original signatures, as 35001-0458 or hand deliver to 50 COND the land owner or lessee, signs this permission to sign this specific form.	Jepth in feet below land surface STRUCTIONS  Ind a check or money order (no 10 North 3rd Street, Phoenix, Ar ITIONS  I	, and details of vault, if spo cash) in the amount of \$10 izona 85004-3903. thorization from the land of company the Notice of Inte	D.00, to P.O. Dwner/lessee, ntion to Drill
i) Inc 1.	Will surface or conductor callude detailed construction of Please submit two original in Box 458, Phoenix, Arizona & If an individual other than the stating that the individual has a Monitor/Piezometer Well to Construction and abandoning Drilling of the well shall be A Well Driller Report is requested to the Pump equipment may not be partment within thirty day	sing extend above grade?: Yes_liagram showing expected water of GENERAL IN OCICES, with original signatures, at 35001-0458 or hand deliver to 50 COND the land owner or lessee, signs this permission to sign this specific form.  ent standards for all wells shall be completed within one year after the uired within thirty days of completed	Jepth in feet below land surface STRUCTIONS  Ind a check or money order (no 10 North 3rd Street, Phoenix, Ar ITIONS  I	cash) in the amount of \$10 izona 85004-3903.  thorization from the land ompany the Notice of Intelection 2-15-811 and R12-15-816.  Report, is required to be for well is pumped, pumping	D.00, to P.O.  Downer/lessee,  It is limited to
i) inc 1. 2.	Will surface or conductor callude detailed construction of Please submit two original in Box 458, Phoenix, Arizona & If an individual other than the stating that the individual has a Monitor/Piezometer Well to Construction and abandoning Drilling of the well shall be A Well Driller Report is requested by Department within thirty day Pump equipment may not be the maximum amount requirement total.  A.A.C. Rule R12-15-811.H.2,	sing extend above grade?: Yes liagram showing expected water of GENERAL IN socices, with original signatures, an 35001-0458 or hand deliver to 50 COND the land owner or lessee, signs this spermission to sign this specific form.  ent standards for all wells shall be completed within one year after to uired within thirty days of completes installation of pump equipals installed on a well drilled for pictures.	Jepth in feet below land surface STRUCTIONS  Ind a check or money order (no 10 North 3rd Street, Phoenix, Ar ITIONS  I	cash) in the amount of \$10 izona 85004-3903.  thorization from the land ompany the Notice of Intelegration from the land ompany the Notice of Intelegration from the land ompany the Notice of Intelegration from the land of Intelegration from the lan	owner/lessee, ntion to Drill iled with the is limited to ne of 10 acre

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NOT TO SCALE

### NOTES:

- 1. CASING DIMENSIONS ARE OUTSIDE DIAMETER
- 2. PVC = POLYVINYL CHLORIDE



PRELIMINARY

BROWN AND CALDWELL

MONITOR WELL REVISION DESIGN

# ROWN AND ALDWELL

July 22, 1997

Mr. Lawrence A. (Al) Ramsey Arizona Department of Water Resources 500 North 3<sup>rd</sup> Street Phoenix, Arizona 85005

15-3355/45

Subject: Notice of Intent (NOI) to Drill and

Request for Emergency Authorization to Drill

Dear Mr. Ramsey:

Attached is a NOI to Drill with a request to modify Well No. 55-549180 located in Florence, Arizona. We are also submitting a NOI to replace the well in the event that repairs are not successful. We request emergency authorization to proceed for the reasons described below.

The Department of Environmental Quality issued BHP Copper an Aquifer Protection Permit (Permit No. 101704) to operate an in-situ copper mining operation northwest of Florence.

One of the requirements of the permit is that BHP Copper establish a 12-month baseline for each of its 31 point-of-compliance (POC) wells before commencing injection. The 12-month baseline has been established for all wells except the aforementioned well and it had 11 months of good data before it suffered a structural failure.

Because BHP is scheduled to commence an injection test program in September, it is important that the well be repaired or replaced immediately. Due to the urgency of the situation, we are enclosing a NOI for modification and a NOI for replacement. The replacement alternative, of course, will be employed only if repairs are not successful. Because the existing well is a POC well, the replacement must be in the same immediate vicinity of the existing well and must be screened over the same interval as the existing well.

Driller information is provided on the attached NOIs. If you have any questions or comments, please contact either of us at (602) 222-4444.

Very truly yours,

**BROWN AND CALDWELL** 

Jarrell E. Southall Project Manger

Marvin F. Glotfeltv

Manager of Groundwater Resources

JES:kw **Enclosures** 

> Mr. Greg Wallace, Arizona Department of Water Resources Ms. Kathy Willman, Arizona Department of Water Resources

500 North Third Street, Phoenix, Arizona 85004 Telephone (602) 417-2470 Fax (602) 417-2422

July 22, 1997



FIFE SYMINGTON
Governor

RITA P. PEARSON Director

BHP COPPER CO. 7400 N ORACLE RD STE. 200 TUCSON AZ 85704

RE:

Registration No. 55-549180

File No. D(4-9)33BBA

Dear Well Owner:

Enclosed for your records is an annotated copy of the Notice of Intention to modify a well. This is returned to you as evidence of compliance with A.R.S. §45-596. A drilling card has been mailed to your designated driller. Prior to drilling he must have it in his possession.

Since this well is being drilled as a Monitor well, or for Cathodic Protection, Grounding, Geotechnical or Piezometer purposes, our standard driller report form is also being furnished to the driller. He is required to complete it and return it to the Department within 30 days after the completion of the well. A Completion Report form is being furnished for monitor wells where pump installation is authorized. This must be completed within thirty days of installation as required by A.R.S. §45-600.

A Change of Well Information form is enclosed for your future use. If you deem it necessary to change the location of the proposed well, please notify the Department on the enclosed form. A properly amended Drilling Card will then be issued and must be in possession of the driller before drilling begins. During the drilling of a new well, if it is determined that it must be abandoned, then a Well Abandonment Completion Report must be submitted per R12-15-816.F.

Per A.R.S. §45-593, the person to whom a well is registered shall notify this Department of a change of ownership of the well and/or information pertaining to the physical characteristics of the well, in order to keep the well registration file current and accurate.

Sincerely,

**Dorothy Boggs** 

Water Resource Technician

Dorothy Dogs

Groundwater Management Support Section

### **Arizona Department of Water Resources**

**Invoice Number:** 

33579

500 North Third Street PHOENIX

85004

1:21 PM, 7/22/97

Customer Name: BROWN & CALDWELL

Fee Type	Description	Quantity	Price	ExtendedPrice
4439-06	Notice of Intent to Drill a Well	1	\$10.00	\$10.00
		SubTotal:		\$10.00
		Tax:		
		Total:	\$10.00	
		Cash Tend	ered :	\$20.00
		Check Ten	dered :	\$0.00
		Total Amount Tendered :		\$20.00
		Change :		\$10.00
		Method of I	Payment :	CASH

THIS IS YOUR RECEIPT ---- "Thank You" Az Department of Water Resources

Check Number:

Register: DRAWER1

Cashier: WRPAB

MONITOR/PIEZOMETER WELL FILING FEE \$10.00

### ARIZONA DEPARTMENT OF WATER RESOURCES OPERATIONS DIVISION

500 NORTH THIRD STREET

MONITOR/PIEZOMETER WEL DEPARTMENT OF FEE \$10.0

PHOENIX, ARIZONA 85004. (602) 417-2470 NOTICE OF INTENTION TO DRILL MONITOR/PIEZOMETER WELL

MAR 3 1 1995

OBJ6-6 Section § 45-596, Arizona Revised Statutes provide: Prior to drilling a monitor or piezometer well, a Notice of Intention to Drill shall be filed with the Department.

1.	WELL LOCATION:	7.	Consulting Firm: BROWN AND CALDWELL	10.	
	4 NG 9 DW 33		Contact Person: STEVE MELLON		APRIL 1995 Month Day Year
	Township   Range   Section		Phone: (602) 222-4445	11.	Period well will remain in
	NE     1/4     NW     1/4     NW     1/4       10 ACRE     40 ACRE     160 ACRE	8.	Purpose of well drilled pursuant to this notice		use Months (Years
2.	Position location of the well on the land:		MonitorX	12.	For monitoring wells, is pump equipment to be installed?
	Latitude 33 0 3 15 "		Piezometer		Yes NoX
	Longitude 111 0 26 ' 15 "	9.	If for deepening or modifying, Well Registration Number		(a) If yes, design pump capacity
3.	County: PINAL		55		(b) What use will be made of the water
4.	Owner of the land of wellsite: MAGMA COPPER COMPANY			13.	Drilling firm:
	Name 14605 WEST HUNTHIGHWAY Address		DO NOT WRITE IN THIS SPACE OFFICE RECORD		BOYLES BROTHERS DRILLING Name 6527 W. HORTHVIEW AVE.
	FLORENCE AZ 85232	F	Sile No. D(4-9)33 BBA		Address
5	City State Zip  Lessee of the land of wellsite:		Filed 3/31/95 By db		GLENDALE AZ 85301 City State Zip
٥.	Name	- 1	nput ENTERED APR 2 0 1995		DWR License No. 28
	Address		DUPLICATE		CLASS A-04 076-386-003 ROC License classification
	City State Zip	V	Mailed 4/12/95 By db	14.	Is the proposed wellsite within 100 feet
6.	Owner of well:	1	Registration 55- <u>549180</u>		of a septic tank system, sewage disposal area, landfill, hazardous waste
	MAGMA COPPER COMPANY Name	A	MADINA PINAL		facility, storage area of hazardous material or petroleum storage areas
	14605 WEST HUNT HIGHWAY Address	V	V/S _ U 8 _ S/B _ //		and tanks?
	FLORENCE AZ 85232 City State Zip	L		J	DEGETVE
16.	Proposed method of abandonment of well after	proj	ect is completed: ACCORDING TO REG	ule	ATTION 12 13 MAR 2 3 1995
			No Potential contamination No		
1.	Fill out this form in <b>DUPLICATE</b> and send <b>W</b>	 ITH	GENERAL INSTRUCTIONS \$10.00 FEE to 500 NORTH THIRD STR	EET	, PHOENIX, AZ 85004

For specific instructions, limitations and conditions, see the reverse side of this form.

Must be signed by land owner or lessee.

Section §45-596(D), provides that the Director shall determine that all information required on form has been submitted. If not, the person filing will be notified and the drilling, deepening, or modification of the well may not proceed.

I state that Notice is filed in compliance with Section § 45-596 and is complete and correct to the best of my knowledge and belief and that I understand the conditions set forth on the reverse side of this form.

18.	If construction plans have been coordinated with Arizagency contact?  If construction plans have been coordinated with Arizagency						
	contact?						·
19.	WELL CONSTRUCTION PLAN  a) Drilling method (mud rotary, hollow-stem auger, e)  b) Borehole diameters: 13 <sup>3</sup> /4 inches from	<u> </u>	$_{ extstyle -}$ feet to $_{ extstyle -}$	20			
	8 <sup>3</sup> /4 inches from		feet to	1090	feet.		
	c) Casing materials (PVC, steel, hollow-stem auger, of material STEEL diameter 9 5/8	_ inches	from	0	feet to_	20	feet
	material PVC SCHD 80 diameter 4	_ inches	from	20	feet to_	905	feet
	<ul> <li>d) Method of sealing at reductions</li> <li>e) Annular seal materials (cement, grout, etc.); meth</li> </ul>	od of pla	coment (	tremied	circula	ted)	· · · · · · · · · · · · · · · · · · ·
	material CEMENT GROUT method TREMIE	from	O .	ri enned	foot to	<b>⊅</b> ∧	feet
	material BENTONITE GROUT method TREMIE				feet to _		feet
	f) Filter packs (state material):	_ 110111 -			1000 20 _	<u> </u>	1000
		from	895		feet to	1090	feet
	material	from			feet to		feet
	g) Perforations or screen specifications:				-		<del></del>
	type . 080 INCH SLOT PYC SCHO 80	_ from _	905		feet to_		feet
	type	_ from _					feet
	<ul><li>h) Method of well development (bail, air lift, surge)</li><li>i) Will surface or conductor casing extend above graden</li></ul>	AIR LI	FT AND	JETT	NG		
<b>2</b> 0.	Include detailed construction diagram showing expect vault, if specified.		·				
	CONDIT	TIONS					
1.	Construction and abandonment standards for all wells R12-15-816.	s shall be	in accor	dance v	vith A.A.	C. R12-15-8	311 and
11.	Drilling of the well shall be completed within one (1) y	ear after	the date	e of Not	ice.		
III.	A Well Driller Report, is required within 30 days of co to be filed with the Department within 30 days after in						
IV.	Pump equipment may not be installed on a well drilled pumped, pumping is limited to the maximum amount may exceed 35 gallons per minute and an annual volume.	required	for mon	itor pur			
v.	A.A.C. Rule R12-15-811.H.2, requires that: "A monito cover or at the top of the steel casing. Identification in						
VI.	Special construction standards required pursuant to A	LA.C. Ru	le R12-1	5-821: _			
					and the second second second		
				i,		B E 17	
						B B 1 V MAR 2.3 10	95
					( e <sup>1</sup> )	graf is a fig. Sec.	:
,					4-5		

DWR-55-44a 9/92 (Rev.)

### ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street, Phoenix, Arizona 85004-3903 Phone (602) 417-2470 Fax (602) 417-2422

# REQUEST FORM TO CHANGE WELL INFORMATION OWNERSHIP \* DRILLER \* VARIANCE

Please complete the appropriate section of this request form and return to the above address with applicable fee. NOTE: A.R.S. § 45-593.C requires that the Department be notified of change of well ownership and that the new owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within thirty days after changes take place.

SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP, CHANGES IN ADDRESS, OR CHANGE IN WELL DATA SUCH AS PUMP CAPACITY, CORRECTION OF LEGAL DESCRIPTION, CHANGE OF WELL DRILLER AND AMENDING INFORMATION PREVIOUSLY FILED.

1.	CHANGE OF WELL INFORMATION: (NO FEE REQUIRED)									
	NOTE: If the location of the proposed well changes after drilling authority has been issued, attach a \$10.00 reissue fee for each well.									
	WELL REGISTRATION NO. 55- 549180	$\mathcal{L}$ FILE NO: $\mathcal{L}$	)(49)33BB							
	If known, I/We request the following well information be changed:									
	NAME CHANGE ONLY									
	Date Signature of Current Well	Owner								
2.	STATEMENT OF CHANGE OF WELL OWNERSHIP: (\$10.00 FEE REQUIRED)									
	NOTE: If this change consists of more than one well and the names are common: attach a \$10.00 fee. Otherwise each well requires a separate fee of \$10.00.									
	I,, state that I am the Previous/New Owner of the well described below									
	10 Acre 40 Acre 160 Acre 160 Acre	Township	Range							
	Well Registration No. 55- See attached		(if known)							
	Magma Copper Company PRINT Previous Owner's Name	BHP Copper Inc. PRINT New Owner's	s Name							
	7400 North Oracle Road, Suite 200	7400 North Oracle Ro	oad, Suite 200							
	Mailing Address	Mailing Address								
	Tucson Arizona 85704 City State Zip	Tucson City S	Arizona 85704 State Zip							
	1		tate Zip							
	520-575-5600	<u>520-575-5600</u> Telephone Number								
	Telephone Number	Telephone Number	100 91							
	Signature of Previous/New Well Owner By: Title: Łand	Managan	Date x 4-23-21							
	litte: Land	i Managei								

DWR 55-71 (Rev 12/95)

- ENTERED WAY - 7 HOR

# ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street, Phoenix, Arizona 85004-3903 Phone (602) 417-2470 Fax (602) 417-2422

### 3. REQUEST TO CHANGE WELL DRILLER \$10.00 FEE REQUIRED FOR EACH WELL

This request must be received by this Department and the Drill Card issued to the new drilling firm prior to the drilling or completion of any well. Well Registration No. 55-File No: \_\_\_\_\_ Original Well Driller New Well Driller Mailing Address Mailing Address **Telephone Number Telephone Number ADWR License Number ADWR License Number** R.O.C. License Category R.O.C. License Category Typed or Printed Name of Well Owner Signature of Well Owner Date The fee charge for well ownership and reissue of drill card is authorized by R12-15-151, effective June 30, 1994. 4. REISSUE OF DRILLING AUTHORITY FOR VARIANCE REQUEST: (\$10.00 EACH WELL) NOTE: If extraordinary or unusual conditions exist, after the initial drilling authority has been issued, the well owner or well driller may request a variance from the provisions of R12-15-811. WELL REGISTRATION NO. 55-\_\_\_\_\_\_\_\_FILE NO: I/WE REQUEST THE FOLLOWING WELL DRILLING AUTHORITY BE REISSUED PER THE ATTACHED VARIANCE REQUEST: Date \_\_\_\_\_ Signature of Well Owner/Well Driller \_\_\_\_\_

W 3

NAME: MAG	MA	COP	PER	CO								G	RID		_	
REPORT NO: WL9020	ARIZON	ARIZONA DEPARTMENT OF WATER RESOURCES WELL REPORT								PAC	SE 5,	,089				
REPORT DATE: 1/31/96 . **** WELLS SEQUENCED BY ALPH						PHABET	ICAL	ORDER **	****							
		Q T U O A W	R N G	S Q T   E C 1 2   T		WELL DEPTH	DEPTH CASED		WATER LEVEL		WELL DRILL DATE	DRL LIC NO.	WTR USE	WS AH TE RD	L C O R G T	O W N
FULL-NAME			_	33 A B (	B 55-549174	0917	0910	05	0124		5/07/1995	360	н	15	ΧИ	
MAGMA COPPER CO 14605 W HUNT HWY		D 4.0		33 A G (	33 347777	•										
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MAGMA COPPER CO 14605 W HUNT HWY		D 4.0	9.0	33 A B (	B 55-549175											
	AZ	85232 D 4.0		77 4 9 5	B 55-549176	0915	0846	06	0138		5/10/1995	360	м	U8	ΧN	
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FLORENCE	A.L	D 4.0			A 55-549179							360	н	15	I N	
MAGMA COPPER CO 14605 W HUNT HWY	4.7		7.0	55 5 6												
FLORENCE		D 4 0	9.0	33 B B A	A 55-549180	0740	0730	05	0152	•	6/15/1995	360	Н	U8 -	X N	
MAGMA COPPER CO 14605 W HUNT HWY FLORENCE																
MAGMA COPPER CO	~~	D 4-0		33 B B /	A 55-549181	1280	1242	06	0147		6/24/1995	360	D	บ8	X N	
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MAGMA COPPER CO			9.0	33 8 8 /	A 55-549182							360	М	15	IN	
14605 W HUNT HWY	ΑZ	85232														
MAGMA COPPER CO	-		14.0	30 A C 6	B 55-545978							109	М	07	ΙN	
PO BOX 100	ΑZ	85539														
MAGMA COPPER CO		A 1.0	14.0	19 D C I	D 55-545979							109	М	97	ΙN	
PO BOX 100	ΑZ	85539														
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Operations Division, 500 North Third Street Phoenix, Arizona 85004 Telephone (602) 417-2470

3. REQUEST TO CHANGE WELL DRILLER	\$10.00 FEE REQUIRED FOR EACH WELL
This request must be received by this Department and t PRIOR to the drilling or completion of any well.	he Drill Card issued to the <u>new drilling firm</u>
Well Registration No. 55- <u>549 180</u>	File No. D(4-9)3366A
BOYLES BROTHERS DRILLING Original Well Driller	ARIZONA BEEMAN DRILLING LIC. New Well Driller
(6527 W. NORTHVIEW AVE.  Mailing Address GLENDALE, AZ 85301	P.O. Box 3370 APACHE JUNGTON, AZ. 85217 Mailing Address
ADWR License Number	ADWR License Number
CLASS A-04 -076-386-002.  R.O.C. License Number	CLASS A-04 - /02429  R.O.C. License Number
JOHN T. KLINE Typed or Printed Name of Well Owner Signature of	f Well Owner Date
The fee charge for well ownership and reissue of effective June 30, 1994.	drill card is authorized by R12-15-151,
DWR-55-71-8/94(Rev)	ENTERED JUN 2 0 1995

JUN 6 1995

Operations Division, 500 North Third Street Phoenix, Arizona 85004 Telephone (602) 417-2470

# REQUEST FORM TO CHANGE WELL INFORMATION OWNERSHIP \* DRILLER

Please complete the appropriate section of this request form and return to the above address with applicable fee. NOTE: A.R.S.§45-593.C. requires that the Department be notified of change of well ownership and that the new owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within thirty (30) days after changes take place.

SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP, <u>CHANGES IN ADDRESS</u>, OR CHANGE IN WELL DATA SUCH AS PUMP CAPACITY, CORRECTION OF LEGAL DESCRIPTION, CHANGE OF WELL DRILLER AND AMENDING INFORMATION PREVIOUSLY FILED.

### 1. CHANGE OF WELL INFORMATION NO FEE REQUIRED NOTE: If the location of the proposed well changes after drilling authority has been issued, attach a \$10.00 reissue fee for each well. Well Registration No. 55-\_\_\_\_\_\_ File No.\_\_\_\_\_ (If known) I/We request the following well information be changed: Signature of Current Well Owner\_\_\_\_ 2. STATEMENT OF CHANGE OF WELL OWNERSHIP \$10.00 FEE REQUIRED If this change consists of more than one well and the names are common: attach a \$10,00 fee. Otherwise, each well requires a separate \$10.00. , state that I am the Previous/New Owner of the well described below: 40 acre 160 acre Well Registration No. 55-\_\_\_\_ File No. PRINT Previous Owner's Name PRINT New Owner's Name Mailing Address Mailing Address City State Zip City State Zip Telephone Telephone Signature of Previous/New Well Owner\_ DWR-55-71-8/94(Rev)

### ARIZONA DEPARTMENT OF WATER RESOURCES **OPERATIONS DIVISION**

REISSUE

500 North Third Street Phoenix, Arizona 85004-3903 Phone (602) 417-2470

**DUPLICATE** 

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO. 55-549178 THRU 55-549182

**AUTHORIZED DRILLER:** 

AZ BEEMAN DRILLING

LICENSE NO. 360

NOTICE OF INTENTION TO DRILL A MONITOR WELL HAS BEEN FILED WITH THE DEPARTMENT BY:

Owner of Well(s)

MAGMA COPPER COMPANY

14605 WEST HUNT HIGHWAY

**FLORENCE** 

AZ 85232

The well(s) is/are to be located in:

NE 1/4 NW 1/4 NW 1/4 10 acre 40 acre 160 acre

Section 33

Township 4.0 SOUTH

Range

9.0 EAST

NUMBER OF WELLS IN PROJECT:

5

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON MAR 30TH, 1996

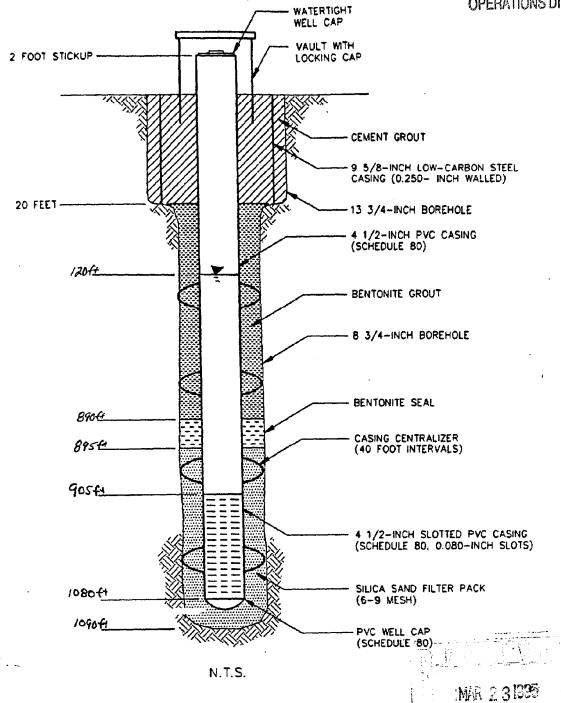
THE DRILLER SHALL FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.



CHIEF, OPERATIONS DIVISION

MAR 3 1 1995

OPERATIONS DIV.



### NOTES:

1. PVC = POLYVINYL CHLORIDE

2. CASING DIMENSIONS ARE OUTSIDE DIAMETER

WELL DESIGN

BROWN AND CALDWELL

500 North Third Street, Phoenix, Arizona 85004 Telephone (602) 417-2470 Fax (602) 417-2401

April 12, 1995

Magma Copper Company 14605 West Hunt Highway Florence, AZ 85232

RE: Registration No. 55-549179 thru 55-549182

File No. D(4-9)33BBA

Dear Well Owner:

Enclosed for your records is an annotated copy of the Notice of Intention to Drill a well. This is returned to you as evidence of compliance with A.R.S. §45-596. A drilling card has been mailed to your designated driller. Prior to drilling he must have it in his possession.

Since this well is being drilled as a Monitor well, or for Cathodic Protection, Grounding, Geotechnical or Piezometer purposes, our standard driller report form is also being furnished to the driller. He is required to complete it and return it to the Department within 30 days after the completion of the well. A Completion Report form is being furnished for monitor wells where pump installation is authorized. This must be completed within thirty days of installation as required by A.R.S. §45-600.

A Change of Well Information form is enclosed for your future use. If you deem it necessary to change the location of the proposed well, please notify the Department on the enclosed form. A properly amended Drilling Card will then be issued and must be in possession of the driller before drilling begins. During the drilling of a new well, if it is determined that it must be abandoned, then a Well Abandonment Completion Report must be submitted per R12-15-816.F.

Per A.R.S. §45-593, the person to whom a well is registered shall notify this Department of a change of ownership of the well and/or information pertaining to the physical characteristics of the well, in order to keep the well registration file current and accurate.

For additional information, you may contact the Operations Division at (602) 542-1581.

Sincerely,

Dorothy Boggs Groundwater Permit Specialist



FIFE SYMINGTON

Governor

RITA P. PEARSON Director

### RECEIPT

18495

BROWN & CALDWELL 3636 N. CENTRAL AVE., STE. 300 PHOENIX, AZ 85012

MAGMA COPPER COMPANY

STATE OF ARIZONA **DEPARTMENT OF WATER RESOURCES OPERATIONS DIVISION** 15 SOUTH 15TH AVENUE PHOENIX, ARIZONA 85007 (602) 542-1581

ENTRY CODE \_\_\_55

FILE NO. 5	5-549128	THRU 55-51	19182
	ITEM DESCRIPTION	· RATE	AMOUNT
FILING FEE FO	R NOI TO DRILL A WELL	10.00	550.00
REG. NO. 55-5	49128 THRU 55-549182		
FILE NO. VARI	OUS		
снеск No. <u>7548</u>	FEE ACCOUNT NO.	ТОТА	L\$550.00
CHIT NO	RECEIVED BY	DB DATE	04-12-95

# ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street Phoenix, Arizona 85004-3903

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-549180

AUTHORIZED DRILLER: STEWART BROTHERS DRILLING COMPANY

LICENSE NO: 314

NOTICE OF INTENTION TO MODIFY A MONITOR WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

CONSULTANT:

**BROWN & CALDWELL** 

WELL OWNER:

BHP COPPER CO.

7400 N ORACLE RD STE. 200

TUCSON AZ 85704

The well(s) is/are to be located in the:

NE 1/4 of the NW 1/4 of the NW 1/4 Section 33 Township 4 SOUTH Range 9 EAST

No. of Wells in this project: 1

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 21ST DAY OF JULY, 1998

CHIEF, GROUNDWATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING



# ARIZONA DEPARTIMENT OF WATER RESOURCES OPERATIONS DIVISION

500 North Third Street Phoenix, Arizona 85004-3903 Phone (602) 417-2470

DUPLICATE

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO. 55-549179 THRU 55-549182

BOYLES BROTHERS DRILLING AUTHORIZED DRILLER:

LICENSE NO.

NOTICE OF INTENTION TO DRILL A MONITOR WELL HAS BEEN FILED WITH THE DEPARTMENT BY:

MAGMA COPPER COMPANY Owner of Well(s)

The well(s) is/are to be located in:

14605 WEST HUNT HIGHWAY

FLORENCE

85232

ΑZ

9.0 **EAST** Range

4.0 SOUTH

Township

Section 33

**NW 1/4** 160 acre

NE 1/4 10 acre NUMBER OF WELLS IN PROJECT:

40 acre NW 1/4

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON MAR 30TH, 1996

THE DRILLER SHALL FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.



CHIEF, OPERATIONS DIVISION